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IS 11646-1 (2003): Cane for Visually Handicapped, Part 1: Rigid, Long and White [MHD 10: Medical Laboratory Instruments]



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“Knowledge is such a treasure which cannot be stolen”

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IS 11646 (Part 1) : 2003

भारतीय मानक
नेत्रहीनों के लिए केन — विशिष्टि
भाग 1 सख्त, लम्बी और सफेद
(पहला पुनरीक्षण)

Indian Standard
CANE FOR VISUALLY HANDICAPPED —
SPECIFICATION
PART 1 RIGID, LONG AND WHITE
(*First Revision*)

ICS 11.180.10

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BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

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Price Group 1

FOREWORD

This Indian Standard (Part 1) (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized the by the Artificial Limbs, Rehabilitation Appliances and Equipment for Disabled Sectional Committee had been approved by the Medical Equipment and Hospital Planning Division Council.

This standard was first published in 1986. At that time considerable assistance was provided by National Association for the Blind, Mumbai for preparation of this standard. The present revision has been taken up to bring it in line with the present manufacturing practices prevailing in the country. In this revision some of the dimensions, corresponding material and requirements have accordingly been modified.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

CANE FOR VISUALLY HANDICAPPED — SPECIFICATION

PART 1 RIGID, LONG AND WHITE

(*First Revision*)

1 SCOPE

This standard (Part 1) covers dimensional and other requirements for rigid, white and long cane used as a probing device for the purpose of mobility by blind persons.

2 REFERENCES

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

<i>IS No.</i>	<i>Title</i>
151 : 1985	Specification for ready mixed paint, spraying, finishing, stoving, enamel, for general purposes, colour as required
7078 : 1973	Specification for plastics used in instrument industry
13607 : 1992	Specification for ready mixed paint, finishing, general purposes, synthetic

3 SHAPES AND DIMENSIONS

The shape of cane is shown in Fig. 1. The total length of cane may vary from 1 010 to 1 370 mm according to the height of the persons using it. However, the preferable lengths are 1 050, 1 100, 1 200 and 1 300 mm.

4 MATERIAL

4.1 Shaft/Tube

The shaft/tube shall be made of aluminium alloy drawn tube or seasoned timber, sawn along the grains, parallel to the annual rings, free from knots, decay, insect bite and termite attack.

4.2 Grip

Grip shall be made of rubber, plastic, nylon or timber, having slight roughness and non-absorbent of heat and moisture.

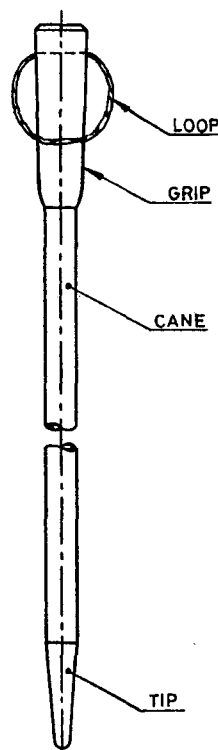


FIG. 1 CANE, RIGID AND LONG

4.3 Tip

Tip shall be made of nylon, plastic, steel or any other suitable material. It shall be detachable from the shaft. Tip shall be capable of giving auditory impulse.

4.4 Coating

The cane may be spray or brush painted with a paint conforming to IS 13607 or IS 151. Alternatively, it may be PVC coated. Coating shall be such that it shall not scrape or chip. The cane finish shall be elegant and reflective. The cane may also be provided with a fluorescent coating which can give spellings in darkness.

4.5 Inner Element

Elastic with single cord or wrapped, plastics or nylon cord if required.

5 CONSTRUCTION

5.1 Shaft

The shaft shall be made of tube of high tensile strength and ductility. The wall thickness of the tube shall be 1.0 mm, minimum and the outside diameter 19.0 mm. An alternative round, hollow cross-section of equal strength may also be used. In case of timber shaft, it shall be solid. The top portion may be white coated and the bottom 250 mm may be painted red. Alternatively, it may be PVC sleeved.

5.2 Grip

The grip may preferably be made of timber, plastic or rubber compound. It may be moulded as shown in Fig. 1. The moulded grip shall have broader end at the top and shall gradually taper at the lower end. The grip shall have flat surface in one of the segments and the remaining portion may have a few (2 or 3) serrations for better grip. The weight of the grip shall be between 70 to 90 g and the length between 200-230 mm. The grip shall be fixed on one end of the shaft with a strong adhesive (preferably, if it is an integral part of the cane). The grip may have elastic or leather loop for handle at a distance of 12 mm from the top end, 225-250 mm perimeter passing through the hole.

5.3 Tip

The tip shall be made from suitable plastics as applicable to plastics for gear specified in IS 7078 or any other material having property of good auditory

impulse. The length of the tip outside the cane shall be 30 to 50 mm. The tip may have a peg hole at one end which may be fixed into the other end of the shaft by either inserting or screwing it into the tube. The diameter of the tip shall be 12.5 mm minimum and may be half round at the bottom.

6 WORKMANSHIP AND FINISH

The functioning of the cane shall be smooth. Sharp points, roughness and projections shall be avoided.

7 MARKING

7.1 Each cane shall be marked with the manufacturer's name, initials or recognized trade-mark and with the total length of the cane below the grip.

7.2 BIS Certification Marking

The cane may also be marked with the Standard Mark.

7.2.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers, may be obtained, from the Bureau of Indian Standards.

8 PACKING

The packing shall be as agreed to between the purchaser and the manufacturer.

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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